

<p style="text-align: center;"><b><u>Meeting Highlights</u></b></p>	<p style="text-align: center;"><b>System Development Life Cycle (SDLC) Workgroup Meeting</b></p> <p><b>DAY:</b> Friday, December 10, 2010  <b>TIME:</b> 9:00AM-12:00PM  <b>LOCATION:</b> Department of Insurance (Dobbs Building, 430 N Salisbury Street, Raleigh, Conference Room 2238) or Dial-In 919-212-3144</p>
<p><b>Meeting Called By:</b></p>	<p>SDLC Workgroup Members</p>
<p><b>Meeting Purpose:</b></p>	<p>Work with Douglas Banich, EA to discuss opportunities to incorporate Agile methods into the Architecture assessments and gate reviews</p>
<p><b>Attendees:</b> (*present)</p>	<p>*Chris Cline, Community Colleges          Beau Garcia/*Gayle Robinson, Department of Insurance          *LaQuita Hudson/Robert Pietras, Information Technology Services          *Paul Jarmul/Michele Jackson, Department of Revenue          *Ronda Jones, Department of Public Instruction          *Arun Kumar/ *Subhparatha Sridharan,, Department of Health &amp; Human Services          *Linda Lowe/*Gaye Mays, Statewide Enterprise Project Management Office          *Cheryl Ritter/*Tommy Steen/*Carolyn Broadney, Department of Transportation</p>
<p><b>Guest:</b></p>	<p>Douglas Banich, Office of SCIO Manager, Enterprise Architecture</p>

### Lessons Learned -

Next meeting Arun will have points from Anthony Vellucci regarding lessons learned with the DHHS CRH project.

### Discuss ITS new/enhanced services and plan agenda for January meeting. – Guests will include Brian Layh and John Scanlon:

- Our objective is to get clarity for who does what and how to facilitate communication when an agency requests a new or enhanced service. There does not appear to be consistency between requests for services.
- Brian Layh, Business Relationship Management and John Scanlon, Service Delivery will be guests: Cheryl may publish presentation that Brian gave to LIG to the work group members in preparation for the January meeting. (Brian may want to reference the presentation).
- We may share the Presentation on Agile and open up discussion for how the BRM and Service Delivery teams may have a part to ensure Agile projects are successful. An alternative would be for the PMA to deliver the presentation to Brian and John's teams after the meeting.
- Suggested points to consider:
  - Publish lead times required for services. –
  - Consistency around the forms ITS requires for different services
  - Define relationship between BRM and Service Delivery teams – and identify the gaps which these groups expect the agencies to fill.
  - What is the relationship between BRM and PMA - Consider if we should invite Kathy....Gaye and Linda will bring this up to Kathy as a possibility for another meeting
  - When does an ITS PM get engaged with Service Delivery, and what is their role vs. an agency PM. Who does what?
- LaQuita will send heads up to Brian and John next week after asking Beau if he has anything to add.

## **Architecture reviews – Guest Douglas Banich, Enterprise Architecture (EA) participated in discussion about Agile for Software Development**

### **How architecture reviews fit with Agile projects [Gayle]:**

- Techniques differ between Software development or COTS or COTS with Custom. The requirements may be different and the level of EA involvement would vary...COTS has a basic framework to start with and requires less architecture up front. There may be multiple COTS for one solution having multiple iterations to fit these together; but perhaps not many.
- Agile is more than SDLC it is a mindset, a cultural change – one may pick pieces for waterfall and others agile.
- What does the EA team determine to be the techniques to use for Architecture reviews? The EA team looks at the architecture for the total solution and if to see if it complies with the State's Architecture. There are various types of system development approaches; most often application architecture with little or no context of the application. In order for EA to make a complete assessment they need to know how the proposed solution fits into the overall context of the system architecture, or with existing architecture.
- Agile is about meeting business requirements; the solution is evolving therefore all is not known up front. Agile is broader than architecture. What does EA require if an agile process would not have the total solution picture at the time builds need to begin? The architecture evolves as the project iterates and there may be no clear picture of the total solution's architecture. –Douglas suggests Caution [similar to budget]; how can approvals be given with such uncertainty of size/cost of the total solution? The PM would customize the methodology for the effort based on the need and may determine to define efforts as small incremental projects (i.e. registered projects).
- Prior to the session Douglas looked at the last 3 yrs of agency projects – Projects classified as SD included 66% that did not go past gate 1 – there was no TASD/Architecture required to go through Gates (registered); and over half of these were COTS
- Douglas cited the Johnson & Johnson company as a successful company using Agile, while at the same time being successful with their architecture.
- The larger the initiative, the higher risk for failure – incentive to break up the initiative for frequent deliverable products.
- Gayle pointed out that 80% complete for a waterfall managed project having 5 different modules could mean there is 20% remaining to complete for each of the 5 modules, while with Agile 80% complete implies 4 of the 5 modules are complete and in a deliverable state.

### **TASD document uses and version control [Gayle]:**

- Reviewed the diagram comparing agile and waterfall citing example and noting that each project could have different number of sprints.
- If a framework is already in place, then Agile is easy to fit in – if the solution is a complete new system with new framework then Agile would be more challenging.
- Suggest maintaining current architecture, i.e. documentation of the current environment and identify how to augment when facing a change – determine impact analysis and be aware of constraints imposed on the effort based on existing environment.

- Architecture means more than infrastructure it also includes logical architecture. The physical design is the build from the logical similar to building a database – start with a logical model then after vetting the logical these requirements are translated into a physical design from which the DB is derived. The physical constraints may influence the logical.
- Consider the Non functional design requirements; e.g., 24X7 up time, 3 hr recovery; scale to 500k users. How are these translated into the physical? If hosted at ITS then would it be for the ITS engineer team? This would be up to engineering and the tech leads who work in concert with the architect team.
- In reference to the TASD format – the detail design is often the physical representation; larger solution may require different views that should stay within confines of the logical. The narratives within the TASD should be robust enough with insight as to why a particular approach was taken vs. another option that was viable.
- Sourcing options – Douglas reported that a work group has been formed and is currently looking into when decisions for how to physically build – e.g. cloud vs. ITS hosting; what are the critical factors to know when looking at alternative sourcing options – what would you need to know in order to make decisions for which source to choose?

### **Enable better collaboration between Enterprise Architecture and the Agencies [LaQuita]:**

- Collaboration at different levels: Not project specific collaboration. Create Collaborative environment and enable dynamic documentation. Douglas reports there are initiatives to create a place in the cloud for CIO and Nevin, Tim Pursell and workgroup to have a virtual meeting place and trying to create something so each agency may participate without partitions.... The biggest constraint is the lack of funding.
- Getting there is a journey:
  1. Open source
  2. Existing technologies
  3. Technical vs. information architecture or even business architectures
  4. After the Dust settles with recent organizational changes Douglas suggests the following next steps:
    - a. Establish a Center of Intelligence
    - b. Obtain a list of agency architects or folk that wear that hat...inquire of their interest to attend architectures sessions formal and informal....share knowledge about what comprises state assets systems, function, data captured in way to provide real value to the agencies/state enterprise.....Hold sessions in a room with white boards....survey what technology can we leverage today; what could we get at little/no cost and put together to rollout to statewide level.
    - c. Immediately Linda/Gaye will work on getting list of agency architects for Doug --

### **Streamline communication method; and establish a global SLA for Agile Projects between EA and the Agencies [Linda]:**

- Doug reports that the PPM tool notifies him of gate approval (Gates 1, 2, 3) and automatically generates a ticket in Remedy assigned to the EA group. Doug has other structures in remedy which help relate a ticket to a project – it is possible the ticket may be assigned and/or reassigned between AE and Agency (pending status requiring agency response) and the ticket is closed after gate review.

- With Agile projects we have an understanding that there may be frequent changes to the architecture and need to facilitate the reviews for a quick turnaround time, suggesting 10 days.
- With Agile we may have intermediate review requests and if review is requested an option may be to keep the original ticket open until it is “appropriate to close a Gate ticket” – during iterations the ticket would remain open – pending for next iteration.
- Doug will think about how he wants to manage review requests; what other tool may be used instead of Remedy for addressing the need to involve the agencies that have projects requiring the 991 process?
  1. Suggest EA using web site that may have an option for project to initiate and manage the architect review.
  2. What about a SLA – Doug agreed that 10 days should be an acceptable turnaround for the review process to be complete.
- Douglas also suggested the following paths to explore which may assist in maintaining a shorter review duration:
  1. Architect piggy back with EPMO to gain an understanding what projects may be coming down the pipe in the next “n” months.... Gaye referenced the annual strategic plan and business plan, documenting technology to support and timeframe to address initiatives. This may be a tool Douglas could reference.
  2. Adopt Standards for diagrams – reference made to Archimate (open source) recently adopted by the open group – architecture definition language – symbols used having specific meaning.
  3. Adopt an enterprise framework and architect – reference made to Togaf 9.0 – open source framework
  4. Opengroup.org – architecture forum - total enterprise view
  5. Collaboration with the Gov office, budget and controller’s office
  6. Biggest challenge – collecting actionable information which provides value for a diverse set of stakeholders.
- Douglas noted that the EA team does not have a good vehicle for communication – sometimes piggy back on PMAG. Suggestions include: Perhaps using the list of Architect contacts for a way to distribute information to the agencies; also consider using the Communication Hub.
- Before leaving the work session Doug suggested we take a look at the NCSTA.gov website and the link to the Agile and Technical Debt video. [note after the meeting Doug shared information about an upcoming virtual conference: Top 10 Agile Development Projects to be Dissected Online at Next Week’s Virtual Conference.

**The session adjourned at 11:55 a.m.**

### **Plans for the next 2 meetings:**

- 1) January 7<sup>th</sup> Ronda will scribe with Linda as backup; Review lessons learned documented for the DHHS CRH project; Meet with Brian Layh and John Scanlon on ITS New/Enhanced Services topic; agree on a meeting agenda for February
- 2) February 4<sup>th</sup> Ronda will scribe with Gaye as backup; Tentatively meet with Kathy Bromeard; agree on meeting agenda for March

### **Action Items:**

- Gaye and Linda will invite Kathy to the February meeting

- Gaye and Linda will document list of agency architects; or folk who serve in the architect role and submit to Douglas
- Arun will gather points from Anthony Vellucci regarding lessons learned from the CRH project
- Cheryl will publish Brian Layh's presentation – Update after meeting – via email exchange Brian forward a copy of his public sector presentation [copy attached]
- LaQuita will publish speaking points for our meeting with Brian Layh and John Scanlon after confirming these with the team.

**The following are areas previously discussed and the priorities set for further discussion (listed in priority order):**

1. ITS A&E (ESRMO and NCID will be part of this category)
2. ITS New/Enhanced Services (discussed ITS provisioning and slow service, need single point of contact, etc.)
3. EPMO – PMA inconsistencies (standards)
4. OSBM
5. All of the following were rated the same: OSC, DCR, Archives, State Auditor
6. IT Procurement – lowest priority because there is another workgroup handling these issues

Note: Agile and other processes will be addressed as part of each of the topics above